

IN THE CLAIMS

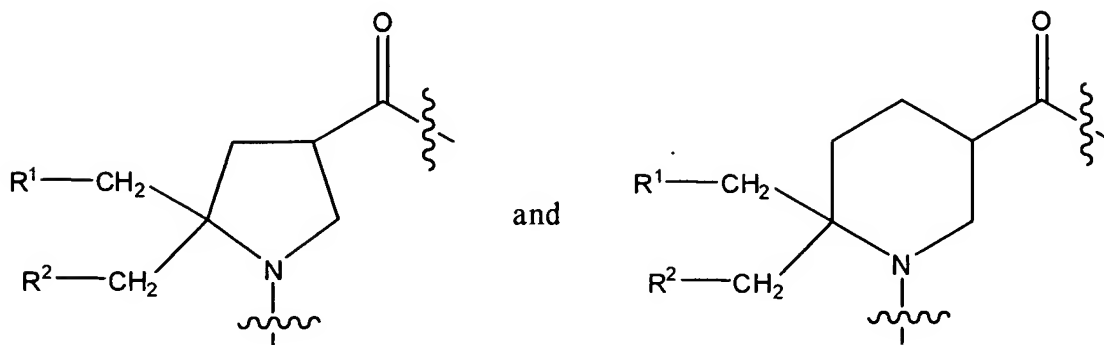
Please delete all prior lists of claims in the application and insert the following list of claims:

1. (CURRENTLY AMENDED) A compound comprising formula:



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



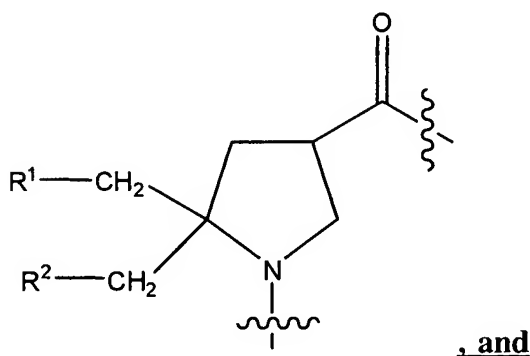
wherein R^1 and R^2 are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C_1 - C_{16} -alkyl, alkenyl, or alkynyl; mono- or di- C_1 - C_{16} alkylamino; mono- or bicyclic aryl; mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl- C_1 - C_{16} -alkyl; mono- or bicyclic heteroaryl- C_1 - C_{16} -alkyl; $-(CH_2)_{0-6}-OR^3$, $-(CH_2)_{0-6}-SR^3$, $-(CH_2)_{0-6}-S(=O)-CH_2-R^3$, $-(CH_2)_{0-6}-S(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-NR^3R^3$, $-(CH_2)_{0-6}-NHC(=O)R^3$, $-(CH_2)_{0-6}-NHS(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-O-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)_2-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-NH-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-N-\{(CH_2)_{2-6}-R^4\}_2$, $-(CH_2)_{0-6}-NHC(=O)-(CH_2)_{2-6}-R^4$, and $-(CH_2)_{0-6}-NHS(=O)_2-(CH_2)_{2-6}-R^4$; wherein

R^3 is independently selected from the group consisting of hydrogen, C_1 - C_6 -

alkyl, alkenyl, or alkynyl; mono- or bicyclic aryl, mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₆-alkyl, mono- or bicyclic heteroaryl-C₁-C₆-alkyl; and

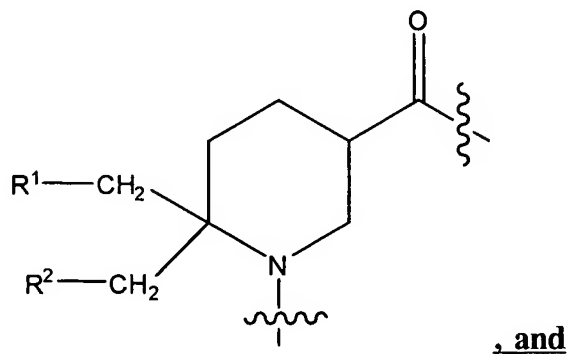
R⁴ is selected from the group consisting of hydroxy, C₁-C₆-alkyloxy, aryloxy, heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl; heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, aryl-C₁-C₆-alkylamino, carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide, mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane; one of X or Y is hydrogen or an amino-terminal ~~capping~~ **protecting** group; the other of X or Y is hydroxy or a carboxy-terminal ~~capping~~ **protecting** group; and salts thereof.

2. (CURRENTLY AMENDED) A compound of Claim 1, wherein each A, independent of every other A, is selected from the group consisting of



X, Y, R¹, R², and n are as defined in Claim 1.

3. (CURRENTLY AMENDED) A compound of Claim 1, wherein each A, independent of every other A, is selected from the group consisting of



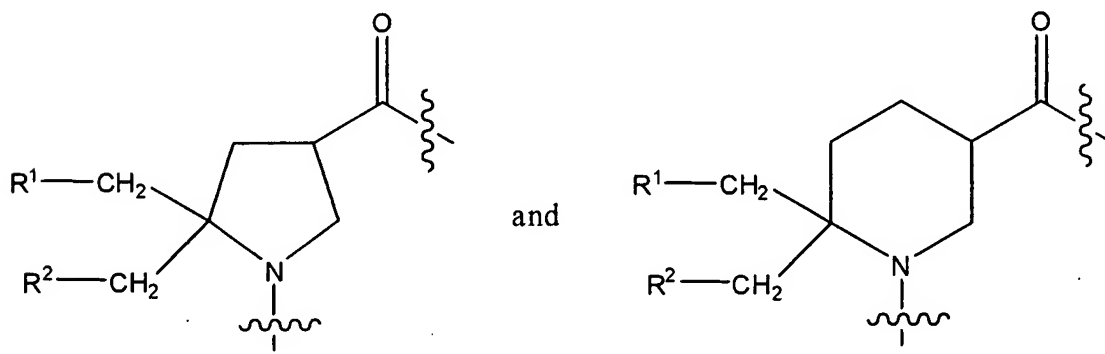
X, Y, R¹, R², and n are as defined in Claim 1.

4. (CURRENTLY AMENDED) ~~A compound of Claim 1,~~ A compound comprising formula:



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



wherein R¹ and R² are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C₁-C₁₆-alkyl, alkenyl, or alkynyl; mono- or di-C₁-C₁₆ alkylamino; mono- or bicyclic aryl; mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₁₆-alkyl; mono- or bicyclic heteroaryl-C₁-C₁₆-alkyl; -(CH₂)₀₋₆-OR³, -(CH₂)₀₋₆-SR³, -(CH₂)₀₋₆-S(=O)-CH₂-R³, -(CH₂)₀₋₆-S(=O)₂-CH₂-R³, -(CH₂)₀₋₆-NR³R³, -(CH₂)₀₋₆-NHC(=O)R³, -(CH₂)₀₋₆-NHS(=O)₂-CH₂-R³, -(CH₂)₀₋₆-O-(CH₂)₂₋₆-R⁴, -(CH₂)₀₋₆-S-(CH₂)₂₋₆-R⁴, -(CH₂)₀₋₆-S(=O)-(CH₂)₂₋₆-R⁴, -(CH₂)₀₋₆-S(=O)₂-(CH₂)₂₋₆-R⁴, -(CH₂)₀₋₆-NH-(CH₂)₂₋₆-R⁴, -(CH₂)₀₋₆-N-{(CH₂)₂₋₆-R⁴}₂, -(CH₂)₀₋₆-NHC(=O)-(CH₂)₂₋₆-R⁴, and -(CH₂)₀₋₆-NHS(=O)₂-(CH₂)₂₋₆-R⁴; wherein

R³ is independently selected from the group consisting of hydrogen, C₁-C₆-alkyl, alkenyl, or alkynyl; mono- or bicyclic aryl, mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₆-alkyl, mono- or bicyclic heteroaryl-C₁-C₆-alkyl; and

R⁴ is selected from the group consisting of hydroxy, C₁-C₆-alkyloxy, aryloxy, heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, aryl-C₁-C₆-alkylamino, carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide, mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane;

wherein one of X or Y is hydrogen or an amino-terminal ~~eapping~~ **protecting** group selected from the group consisting of formyl, acetyl, tBoc, and Fmoc; and the other of X or Y is hydroxy or a carboxy-terminal ~~eapping~~ **protecting** group[[;]] selected from the group consisting of NH₂, NH(alkyl), and N(alkyl)₂;

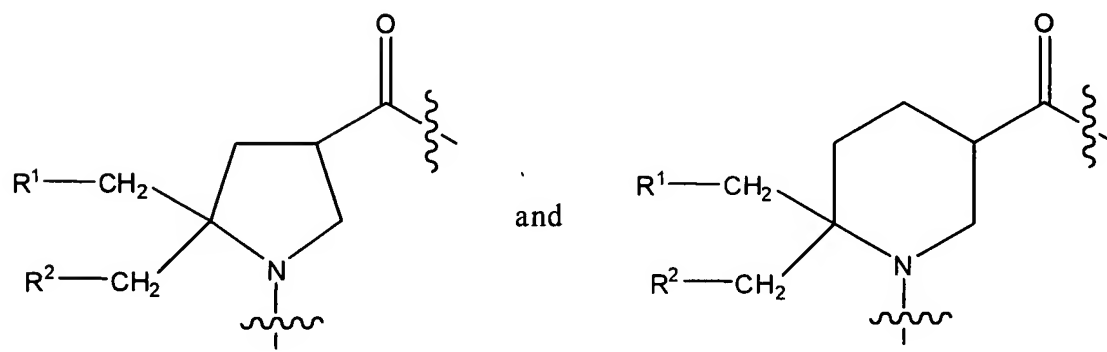
and salts thereof.

5. (CURRENTLY AMENDED) ~~A compound of Claim 1,~~ **A compound comprising formula:**



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



wherein R¹ and R² are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C₁-C₁₂-alkyl, alkenyl, or alkynyl; mono- or di- C₁-C₁₂ alkylamino; mono- or bicyclic aryl; mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₁₂-alkyl; and mono- or bicyclic heteroaryl-C₁-C₁₂-alkyl[[,]]; **and**

one of X or Y is hydrogen or an amino-terminal protecting group; and

the other of X or Y is hydroxy or a carboxy-terminal protecting group;

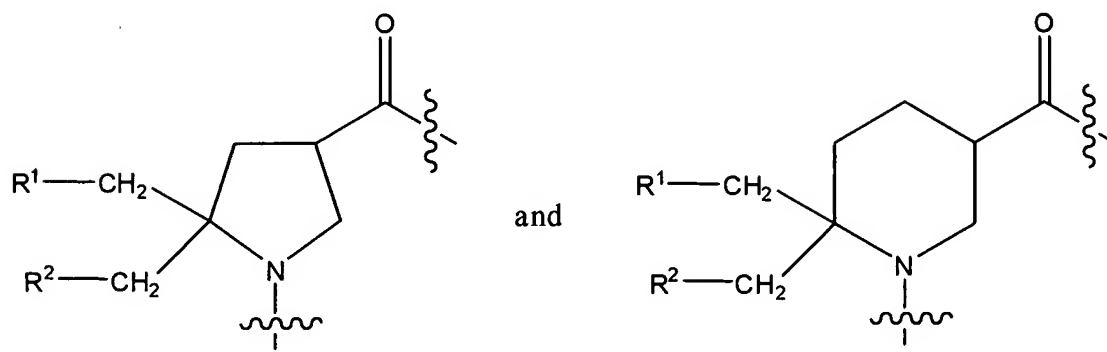
and salts thereof.

6. (CURRENTLY AMENDED) ~~A compound of Claim 1,~~ A compound comprising formula:



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



wherein R^1 and R^2 are independently selected from the group consisting of $-(CH_2)_{0-6}-OR^3$, $-(CH_2)_{0-6}-SR^3$, $-(CH_2)_{0-6}-S(=O)-CH_2-R^3$, $-(CH_2)_{0-6}-S(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-NR^3R^3$, $-(CH_2)_{0-6}-NHC(=O)R^3$, $-(CH_2)_{0-6}-NHS(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-O-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)_2-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-NH-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-N-\{(CH_2)_{2-6}-R^4\}_2$, $-(CH_2)_{0-6}-NHC(=O)-(CH_2)_{2-6}-R^4$, and $-(CH_2)_{0-6}-NHS(=O)_2-(CH_2)_{2-6}-R^4$; wherein

R^3 is independently selected from the group consisting of hydrogen, C_1-C_6 -alkyl, alkenyl, or alkynyl; mono- or bicyclic aryl, mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl- C_1-C_6 -alkyl, mono- or bicyclic heteroaryl- C_1-C_6 -alkyl; and

R^4 is selected from the group consisting of hydroxy, C_1-C_6 -alkyloxy,

aryloxy, heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, aryl-C₁-C₆-alkylamino, carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide, mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane; one of X or Y is hydrogen or an amino-terminal protecting group; and the other of X or Y is hydroxy or a carboxy-terminal protecting group; and salts thereof.

7. (ORIGINAL) A compound of Claim 6, wherein

R³ is independently selected from the group consisting of hydrogen, C₁-C₆-alkyl, alkenyl, or alkynyl; mono- or bicyclic aryl, mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₆-alkyl, mono- or bicyclic heteroaryl-C₁-C₆-alkyl; and

R⁴ is selected from the group consisting of hydroxy, C₁-C₆-alkyloxy, aryloxy, heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, aryl-C₁-C₆-alkylamino, carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide,

mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane.

8. (ORIGINAL) A compound of Claim 6, wherein

R³ is independently selected from the group consisting of hydrogen, C₁-C₆-alkyl, alkenyl, or alkynyl; and mono- or bicyclic aryl; and

R⁴ is selected from the group consisting of hydroxy, C₁-C₆-alkyloxy, aryloxy, heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, and aryl-C₁-C₆-alkylamino.

9. (ORIGINAL) A compound of Claim 6, wherein

R³ is selected from the group consisting of mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl-C₁-C₆-alkyl, and mono- or bicyclic heteroaryl-C₁-C₆-alkyl; and

R⁴ is selected from the group consisting of carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide, mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the

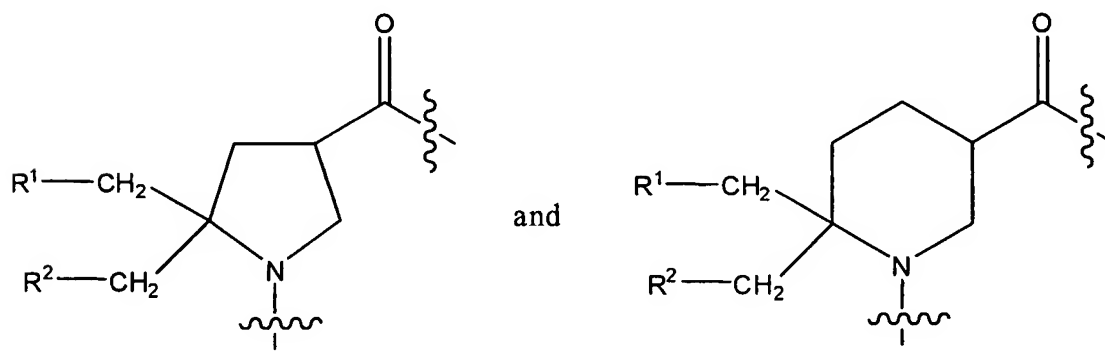
substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane.

10. (CURRENTLY AMENDED) ~~A compound of Claim 1~~, A compound comprising formula:



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



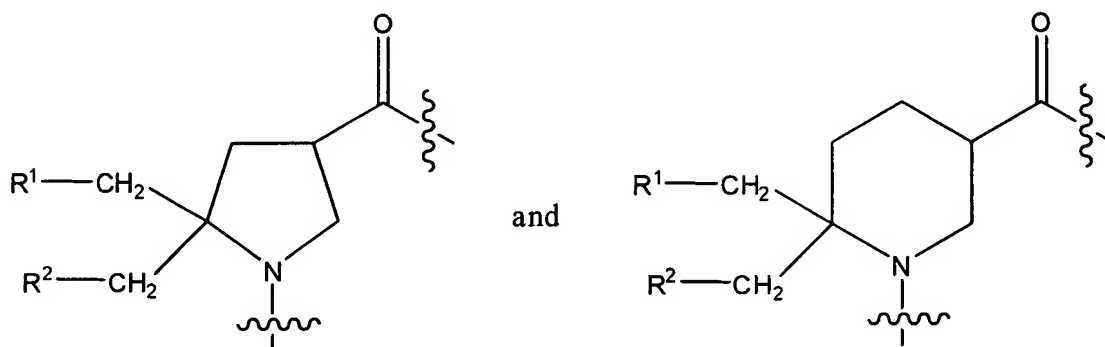
wherein R¹ and R² are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C₁-C₆-alkyl, alkenyl, or alkynyl; -(CH₂)₀₋₆-OR³; mono- or di- C₁-C₆ alkylamino; mono- or bicyclic aryl; and mono- or bicyclic aryl-C₁-C₆-alkyl; and

one of X or Y is hydrogen or an amino-terminal protecting group selected from the group consisting of formyl, acetyl, tBoc, and Fmoc; and the other of X or Y is hydroxy or a carboxy-terminal protecting group selected from the group consisting of NH₂, NH(alkyl), and N(alkyl)₂.

11. (ORIGINAL) A compound of Claim 1, wherein R¹ and R² are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C₁-C₆-alkyl, monocyclic aryl, and monocyclic aryl-C₁-C₆-alkyl.

12. (WITHDRAWN) A method of preparing a combinatorial library of oligomers or polymers of cyclic imino carboxylic acids comprising, the method comprising at least two successive iterations of:

- (a) covalently linking a first subunit via its C terminus to a plurality of separable solid substrates, the first subunit selected from the group consisting of compounds of structure



wherein R^1 and R^2 are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C_1 - C_{16} -alkyl, alkenyl, or alkynyl; mono- or di- C_1 - C_{16} alkylamino; mono- or bicyclic aryl; mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl- C_1 - C_{16} -alkyl; mono- or bicyclic heteroaryl- C_1 - C_{16} -alkyl; $-(CH_2)_{0-6}-OR^3$, $-(CH_2)_{0-6}-SR^3$, $-(CH_2)_{0-6}-S(=O)-CH_2-R^3$, $-(CH_2)_{0-6}-S(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-NR^3R^3$, $-(CH_2)_{0-6}-NHC(=O)R^3$, $-(CH_2)_{0-6}-NHS(=O)_2-CH_2-R^3$, $-(CH_2)_{0-6}-O-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-S(=O)_2-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-NH-(CH_2)_{2-6}-R^4$, $-(CH_2)_{0-6}-N\{(CH_2)_{2-6}-R^4\}_2$, $-(CH_2)_{0-6}-NHC(=O)-(CH_2)_{2-6}-R^4$, and $-(CH_2)_{0-6}-NHS(=O)_2-(CH_2)_{2-6}-R^4$; wherein

R^3 is independently selected from the group consisting of hydrogen, C_1 - C_6 -alkyl, alkenyl, or alkynyl; mono- or bicyclic aryl, mono- or bicyclic heteroaryl having up to 5 heteroatoms selected from N, O, and S; mono- or bicyclic aryl- C_1 - C_6 -alkyl, mono- or bicyclic heteroaryl- C_1 - C_6 -alkyl; and

R^4 is selected from the group consisting of hydroxy, C_1 - C_6 -alkyloxy, aryloxy,

heteroaryloxy, thio, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, arylthio, arylsulfinyl, arylsulfonyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, amino, mono- or di-C₁-C₆-alkylamino, mono- or diarylamino, mono- or diheteroarylamino, N-alkyl-N-arylamino, N-alkyl-N-heteroarylamino, N-aryl-N-heteroarylamino, aryl-C₁-C₆-alkylamino, carboxylic acid, carboxamide, mono- or di-C₁-C₆-alkylcarboxamide, mono- or diarylcarboxamide, mono- or diheteroarylcarboxamide, N-alkyl-N-arylcarboxamide, N-alkyl-N-heteroarylcarboxamide, N-aryl-N-heteroarylcarboxamide, sulfonic acid, sulfonamide, mono- or di-C₁-C₆-alkylsulfonamide, mono- or diarylsulfonamide, mono- or diheteroarylsulfonamide, N-alkyl-N-arylsulfonamide, N-alkyl-N-heteroarylsulfonamide, N-aryl-N-heteroarylsulfonamide, urea; mono- di- or tri-substituted urea, wherein the substituent(s) is selected from the group consisting of C₁-C₆-alkyl, aryl, heteroaryl; O-alkylurethane, O-arylurethane, and O-heteroarylurethane; one of X or Y is hydrogen or an amino-terminal capping group; the other of X or Y is hydroxy or a carboxy-terminal capping group; and salts thereof;

- (b) randomly dividing the plurality of substrates into at least two sub-groups; and
- (c) deprotecting the first subunits attached to the solid substrates of the at least two sub-groups; then
- (d) in separate, independent reactions, covalently linking to the first subunit of each of the at least two sub-groups, a second subunit independently selected from the group listed in step (a); and then
- (e) combining the at least two sub-groups into a single plurality; and then
- (f) repeating steps (b) through (e).

13. (WITHDRAWN) A combinatorial library of oligomers or polymers of cyclic imino carboxylic acids comprising a plurality of distinct oligomers or polymers of cyclic imino carboxylic acids covalently linked to a solid support, the combinatorial library produced according to the method of Claim 12.

14. (ORIGINAL) A combinatorial array comprising a plurality of distinct oligomers or polymers of compounds according to Claim 1 at selected, known locations on a substrate or in discrete solutions, wherein each of the oligomers or polymers of Claim 1 is substantially pure within each of the selected known locations or discrete solutions and has a composition that is different from other oligomers or polymers disposed at other selected and known locations on the substrate or in other discrete solutions.

15. (NEW) A compound of Claim 5, wherein one of X or Y is hydrogen or an amino-terminal protecting group selected from the group consisting of formyl, acetyl, tBoc, and Fmoc; and the other of X or Y is hydroxy or a carboxy-terminal protecting group selected from the group consisting of NH₂, NH(alkyl), and N(alkyl)₂.

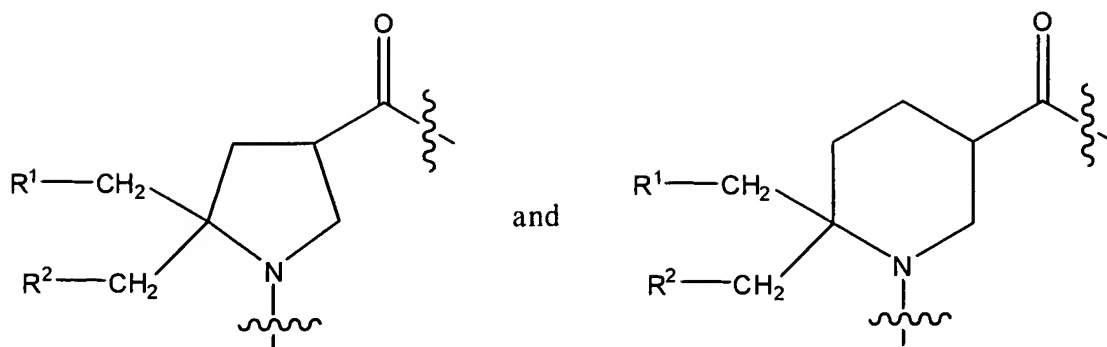
16. (NEW) A compound of Claim 6, wherein one of X or Y is hydrogen or an amino-terminal protecting group selected from the group consisting of formyl, acetyl, tBoc, and Fmoc; and the other of X or Y is hydroxy or a carboxy-terminal protecting group selected from the group consisting of NH₂, NH(alkyl), and N(alkyl)₂.

17. (NEW) A compound comprising formula:



wherein n is an integer greater than 1; and

each A, independent of every other A, is selected from the group consisting of:



wherein R^1 and R^2 are independently selected from the group consisting of hydrogen, hydroxy, linear or branched C_1 - C_6 -alkyl, monocyclic aryl, and monocyclic aryl- C_1 - C_6 -alkyl; and

one of X or Y is hydrogen or an amino-terminal protecting group selected from the group consisting of formyl, acetyl, tBoc, and Fmoc; and the other of X or Y is hydroxy or a carboxy-terminal protecting group selected from the group consisting of NH_2 , $NH(alkyl)$, and $N(alkyl)_2$.